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CLAIMS:

1. Method of transforming a first set of write parameters (W) of a write strategy for recording marks in an information layer (301) of a record carrier (30) by irradiating the information layer (301) with a pulsed radiation beam (32) at a first recording speed (R) into a second set of write parameters (W') of said write strategy for recording marks at a second recording speed (R'), wherein the duration of the write pulses is kept substantially constant in time, and the duration of a complete sequence of write pulses for recording a mark is kept substantially constant as a fraction of a reference clock.
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2. Method according to claim 1, wherein
10 an even mark having a time length of nT, where n represents an integer value equal to 4, 6, 8 or 10, and T represents the length of one period of the reference clock, is written by a sequence of n/2 write pulses,
an odd mark having a time length of nT, where n represents an integer value equal to 5, 7, 9 or 11, is written by a sequence of (n-1)/2 write pulses, and
15 a mark having a time length of 3T is written by a single write pulse.
3. Method according to claim 2, wherein
20 a last write pulse in the sequence of write pulses for writing an odd mark is a period Δ_1 longer than a last write pulse in the sequence of write pulses for writing an even mark, and a gap preceding the last write pulse in the sequence of write pulses for writing an odd mark is a period Δ_1 longer than a gap preceding the last write pulse in the sequence of write pulses for writing an even mark.
4. Method according to claim 3,
25 wherein said period Δ_1 is kept constant in time and is within a range from 1 to 5ns, in particular within a range from 2 to 4 ns.
5. Method as claimed in claim 3, wherein

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the duration of the write pulses, except for the last pulse for writing an odd mark and except for the write pulse for writing a mark having a time length of 3T, is in a range from 5 to 10 ns, in particular substantially equal to 7.2 ns,

the period Δ_1 has a duration in a range from 2 to 5 ns, in particular substantially equal to 3.6

5 ns,

and the duration of the single write pulse for writing a mark having a time length of 3T is in a range from 8 to 15 ns, in particular substantially equal to 12.6 ns.

6. Method according to claim 1,

10 wherein a mark having a time length of 3T, T representing the length of one period of the reference clock, is written by a single write pulse having a time length $T_3' - dT_3$, the start of which is delayed by a period of dT_3 relative to the start of write pulses for writing an even or odd mark, and which is a period of $\Delta_3 - dT_3$ longer than the write pulses for writing an even mark.

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7. Method as claimed in claim 1, wherein

the duration of a complete sequence of write pulses for writing a mark having a time length of nT , where n represents an integer value equal to 4, 6, 8 or 10, and T represents the length of one period of the reference clock, is equal to $(n - \Theta_{\text{even}})T$,

20 the duration of a complete sequence of write pulses for recording a mark having a time length of nT , where n represents an integer value equal to 5, 7, 9 or 11, is equal to $(n - \Theta_{\text{odd}})T$, and the duration of the single write pulse and the subsequent cooling gap for recording a mark having a time length of 3T is equal to $(3 - \Theta_3)T$, and wherein said values of Θ_{even} , Θ_{odd} and Θ_3 are kept constant as a fraction of the reference 25 clock T.

8. Method according to claim 7, wherein

Θ_{even} is in a range from 5/8 T to 9/8T, in particular substantially equal to 7/8T,

Θ_{odd} is in a range from 6/8T to 10/8T, in particular substantially equal to 8/8T,

30 and Θ_3 is in a range from 5/8T to 9/8T, in particular substantially equal to 7/8T.

9. Device for transforming a first set of write parameters (W) of a write strategy for recording marks in an information layer (301) of a record carrier (30) by irradiating the information layer (301) with a pulsed radiation beam (32) at a first recording speed (R) into a

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second set of write parameters (W') of said write strategy for recording marks at a second recording speed (R'), said device comprising:

input means (611) for receiving said first set of write parameters and an information about said first and second recording speeds (R, R'),

5 first transforming means (612) for keeping the duration of the write pulses constant in time, second transforming means (613) for keeping the duration of a complete sequence of write pulses for recording a mark constant as a fraction of a reference clock, and output means (614) for outputting said second set of write parameters (W').

10 10. Recording device for recording marks in an information layer (301) of a record carrier (30) using a write strategy by irradiating the information layer (301) by means of a pulsed radiation beam (32), each mark being written by a sequence of one or more write pulses, said recording device comprising:

a radiation source (31) for providing the radiation beam (32),

15 a control unit (62) operative in controlling the power of the radiation beam (32) and in providing the sequences of pulses for recording the marks,

a selection unit (60) operative in selecting and/or controlling the recording speed (R, R'), and a transformation device (61) for transforming a first set of write parameters (W) of a write strategy for recording marks at a first recording speed (R) into a second set of write

20 parameters (W') of said write strategy for recording marks at a second recording speed (R') according to claim 1.

11. Recording device as claimed in claim 10, wherein

said selection unit (60) is adapted for controlling the recording speed (R, R') in accordance

25 with a constant angular velocity operation, a partial constant angular velocity operation, or a zoned constant linear velocity operation.

12. Recording device as claimed in claim 10,

further comprising a storage means (63) for storing at least two sets of write parameter

30 settings for recording marks at different recording speeds (R, R'), said transformation device (61) being further operative in selecting the corresponding set of write parameter settings (W) from said storage means (63) in accordance with the selected recording speed (R, R').